Python Beginner Examination

Total Questions: 30
Topics: Strings, Parsing, Data Types, Functions (`def`), Classes
Level: Incremental (Basic → Hard)
Question Types: Multiple Choice, Code Completion, Full Coding

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Part 1: Multiple Choice (10 questions)

1. What is the correct way to assign a string to a variable in Python?
A. `str name = "Alice"`
B. `name = "Alice"`
C. `string name = 'Alice'`
D. `let name = 'Alice'`

2. Which of the following is a valid function definition in Python?
A. `function myfunc():`
B. `def myfunc():`
C. `define myfunc():`
D. `func myfunc():`

3. What does the following code print?

```
print(type(3.14))
```

A. `<class 'int'>`
B. `<class 'float'>`
C. `<type 'float'>`
D. `<float>`

4. How do you access the third character in the string `s = "Python"`?
A. `s[3]`
B. `s(2)`
C. `s[2]`
D. `s[1]`

5. What is the output of this code?

```
fruit = "banana"
print(fruit.upper())
```

A. `Banana`
B. `banana`
C. `BANANA`
D. `fruit.upper()`

6. Which of the following is NOT a built-in data type in Python?
A. `list`
B. `map`

C. `dict`
D. `tuple`

7. What will be printed?

```
def add(x, y):
    return x + y

print(add("2", "3"))
```

A. `5`
B. `23`
C. `2 3`
D. Error

8. What does the `pass` statement do in Python?
A. Exits a function
B. Skips the current loop iteration
C. Does nothing
D. Returns a value

9. Which of the following creates an instance of a class `Person`?
A. `Person.create()`
B. `person = Person()`
C. `Person[]`
D. `person = new Person()`

10. What is the output?

```
x = 10
y = x
x = 20
print(y)
```

A. `10`
B. `20`
C. `x`
D. Error

Part 2: Complete the Code (10 questions)

11. Fill in the blank to define a function that returns the square of a number.

```
def square(n):
    return _____
```

12. Complete the code to check if a string starts with "A":

```
s = "Apple"
if s._____("A"):
    print("Starts with A")
```

13. Fill in the blank to declare a list with values 1, 2, 3:

```
numbers = ____________
```

14. Complete the code to print all characters in "cat" using a for loop:

```
for char in "cat":
    ___________
```

15. Complete the code to define a class named `Dog`:

```
_____ Dog:
    def __init__(self, name):
        self.name = name
```

16. Fill in the blank to convert a string to an integer:

```
s = "123"
num = ____________
```

17. Complete the code to append 5 to the list `lst`:

```
lst = [1, 2, 3]
lst._____(5)
```

18. Fill in the blank to check if a variable `x` is of type `int`:

```
if ____________:
    print("x is an integer")
```

19. Complete the code to print the length of the string `word`:

```
word = "hello"
print(__________)
```

20. Fill in the blank to create a dictionary with `"a": 1, "b": 2`:

```
my_dict = _________________
```

Part 3: Full Coding (10 questions, increasing difficulty)

21. Write a function that takes a string and returns it reversed.

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22. Write code to count the number of vowels in a given string.

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23. Define a function that takes a sentence and returns a list of words.

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24. Write a function that checks if a given word is a palindrome (reads the same forwards and backwards).

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25. Write a class named `Rectangle` with attributes `width` and `height`, and a method `area` that returns the area.

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26. Given a list of numbers, write code to return a new list containing only the even numbers.

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27. Write a function that parses a comma-separated string of numbers and returns their sum as an integer.

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28. Write code to read a string from user input and print whether it contains only digits.

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29. Write a class `Book` with attributes `title` and `author`, and a method `get_info` that returns `"Title by Author"`.

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30. (Hard) Write a class `Parser` that takes a string in its constructor and has a method `count_letters` which returns the number of alphabetic letters in the string.
